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CENTRAL INTELLIGENCE AGENCY
National Foreign Assessment Center
14 December 1981

MEMORANDUM

SOVIET ARMS DELIVERIES:
EFFECT ON CUBAN MILITARY CAPABILITIES

This memorandum is the first yearly report on Soviet military assistance to the Cuban armed forces and the military capabilities of those forces, covering the period from 1 January through 31 October 1981. It was prepared in accordance with Section 714 of Public Law 96-533, approved by the President on 16 December 1980. [redacted]

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Overview

During the first ten months of 1981, Soviet military deliveries to Cuba reached the highest level in almost 20 years [redacted] Most of the arms delivered apparently were intended for the Cuban armed forces, which have begun a new five-year equipment upgrading and replacement cycle. The remainder probably went to Cuban paramilitary forces, into Cuban stockpiles, or to help the Sandinistas enlarge and strengthen the Nicaraguan military. The modernization of the Cuban military has been totally underwritten by the Soviets since 1962. [redacted]

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This memorandum was prepared by the Offices of Global Intelligence and African and Latin American Analysis, CIA, and coordinated within the Intelligence Community. Comments and questions may be directed to [redacted] Director, Office of African and Latin American Analysis, [redacted] gray.

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As a result of Soviet aid, Cuba's armed forces have changed from a predominantly home defense force into one with formidable military capabilities relative to its Latin American neighbors and other Third World countries. Quantitative and qualitative improvements to the armed forces since the mid-1970s and increasing Soviet-Cuban military ties have enabled Cuba to assume a far more influential role on the world scene than its size, location or resources would dictate. Cuba has the capability to provide friendly governments with large numbers of troops and military supplies. Cuba's capability to intervene with substantial military force in a hostile environment, however, is constrained by a lack of large cargo transport aircraft or amphibious assault capability. [redacted]

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Cuban force modernization will continue to have a high priority well into the future. Although substantial improvements have been made since the mid-1970s, Cuban armed forces still are equipped with large numbers of weapons that have been in service for over two decades. At least for the near term, therefore, most weapons improvements will involve additional Soviet deliveries of systems already received by the Cubans by the end of this year. [redacted]

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Trends in Soviet Arms Deliveries

Soviet military deliveries to Cuba increased sharply during the first ten months of 1981 and far exceeded annual totals for recent years. By the end of October [redacted] had been shipped to the island [redacted] compared to only [redacted] in all of 1980. [redacted] Deliveries began relatively slowly in the first quarter of the year but picked up significantly from April through June, reaching a peak [redacted] in May alone. Deliveries continued at higher than normal levels until October, with the total delivered since June still well above the average annual total during the last decade. [redacted]

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The large amount of weapons delivered in 1981 represents the most significant Soviet military supply effort to Cuba since a record quarter of a million tons was shipped in 1962. [redacted] Following the rising trend in deliveries of the last decade, [redacted] this year is some five times the average annual rate [redacted] during the late 1960s and early 1970s and two and a half to three times the accelerated rate of the late 1970s. [redacted]

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Factors Behind the Increase

We cannot account definitively for this year's dramatic increase in Soviet military deliveries to Cuba. Although we have been able to identify

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many of the weapons systems included in the deliveries, [REDACTED] would fall far short of that delivered.¹ It is likely, however, that some combination of the following factors accounts for the surge:

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- ° The start of a new five-year upgrading and replacement cycle for the Cuban military; similar increases were observed in 1967 and 1976.
- ° Soviet efforts to meet Castro's concerns about US intentions, which rose sharply soon after the election of the present US administration.
- ° Soviet materiel support to the Sandinista regime in Nicaragua, either by using Cuba as a transshipment point or by providing offsets for direct Cuban military aid.

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This year marks the beginning of a new upgrading and replacement cycle for the Cuban military and many of the arms delivered have served to modernize all branches of the armed forces. (See Chart 3.) The Army's firepower and mobility have been modestly improved by the receipt of small numbers of additional T-62 tanks, modern personnel carriers, and possibly its first self-propelled artillery.² The Air and Air Defense Force received additional late-model MiG-21 fighters and An-26 short-range transports; the air defense force, in particular, has been improved by the introduction of new early warning/ground-controlled intercept radars, a more capable target acquisition and missile control radar for the SA-2 surface-to-air missile system, and additional SA-2 missiles and transporters. The Navy received its largest and most modern combatant, a Koni-class frigate armed with SA-N-4 surface-to-air missiles, antisubmarine rockets, and guns, as well as its second Sonya-class minesweeper and additional patrol boats. [REDACTED]

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This year's deliveries may have included large amounts of military supplies, small arms, and ammunition both to strengthen Cuban stockpiles and

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³ In late November, the Navy received 2 additional OSA-II-class guided-missile attack boats. [REDACTED]

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Chart 3

SOVIET MILITARY DELIVERIES TO CUBA:
SELECTED WEAPONS SYSTEMS AND EQUIPMENT⁴

	1976	1977	1978	1979	1980	Jan--Oct 1981	Estimated Total to Date
<u>Ground</u>							
Tank, T-54/55 (mixed), medium	--	--	--	--	30	--	255
Tank, T-62, medium, 115-mm	50	--	--	--	--	10	60
APC, BTR-60, 60P, 60PB (mix)	--	--	--	--	45	26	170
Amphibious infantry fighting vehicle, BMP	--	--	--	24	6	10	46
Antitank gun, 57-mm, M1943, ZIS-2	--	--	--	--	--	47	362
Antitank gun, 100-mm, T-12	--	--	--	--	51	20	71
Air defense artillery, self-propelled, 23-mm ZSU-23-4	15	--	7	--	--	--	22
Air defense artillery, 23-mm, ZU-23	--	--	--	--	--	17	17
Air defense artillery, 57-mm, S-60	--	--	--	--	36	--	181
Field artillery, rocket launcher, 122-mm BM-21, 40 RD	40	--	--	--	--	--	40
*Field artillery, howitzer, self-propelled, 122-mm, M1974	--	--	--	--	--	2	2
*Field artillery, possible howitzer, self-propelled, 152-mm, M1973	--	--	--	--	--	2	2
<u>Air/Air Defense</u>							
Fighter, MIG-17, Fresco	--	4	--	--	--	--	63
Fighter, MIG-21, Fishbed	3	13	14	2	21	22	199
Fighter, MIG-23, Flogger	--	--	12	--	--	--	12
Transport, AN-26, Curl	--	--	5	15	--	4	24
Transport, AN-30, Clank	--	--	--	2	--	--	2
Helicopter, MI-8, Hip	--	--	22	3	--	--	29
Missile launcher, SAM, SA-3, GOA	9	3	6	--	--	--	18
Missile, SAM, SA-2, Guideline	--	--	--	--	--	46	746
Missile, SAM, SA-3, GOA	108	36	72	--	--	--	216
Electronic Warfare Equipment, Turn Cut/Turn Pole	--	--	--	--	2	1	3
Electronic Warfare Equipment, Turn Twist	--	--	--	--	1	2	3
Electronic Warfare Equipment, Turn Spike	--	--	--	--	1	--	1
*Radar, Fan Song E	--	--	--	--	--	3	3
*Radar, Odd Pair	--	--	--	--	--	2	2
*Radar, Back Trap	--	--	--	--	--	2	2
<u>Naval</u>							
*Frigate, KONI-class	--	--	--	--	--	1	1
Submarine, F-class	--	--	--	1	1	--	2
Submarine, W-class (non-operational)	--	--	--	1	--	--	1
Missile attack boat, OSA-II class	1	1	3	2	--	--**	7
Hydrofoil patrol craft, TURYA class	--	--	--	2	2	2	6
Patrol boat, ZHUK class	2	4	--	--	6	--	18
Coastal minesweeper, SONYA class	--	--	--	--	1	1	2
Inshore minesweeper, YEVGENYA class	--	2	1	2	--	--	5

⁴ Included are the most significant items in terms of quantity or capabilities. Numbers are minimum counts and
Totals for some ground equipment, such as T-62 tanks and BM-21
multiple rocket launchers, include deliveries both to Cuban forces and to the Soviet brigade there.

* Indicates initial deliveries occurred in 1981.

** Two OSA-II missile attack boats were delivered in November.

to accelerate the arming of the territorial militia which began forming last year and which Castro claimed already had 500,000 members last July. [REDACTED]

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Finally, while most of the equipment being delivered has apparently been intended for the Cuban military or militia, some has likely been transshipped to Nicaragua. Shipments to Cuba have included substantial numbers of 23mm antiaircraft guns and outdated 57mm antitank weapons; both types of equipment have recently been observed in small numbers in the Nicaraguan inventory. [REDACTED]

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[REDACTED] In addition, offsets for possible direct Cuban military aid to Managua could also account for some of the increase in deliveries from the Soviet Union. [REDACTED]

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Impact of Soviet Arms on Cuban Military Capabilities

The Soviets have provided Cuba with more than \$2 billion worth of military equipment since the beginning of 1962, with deliveries during the first ten months of 1981 valued at well over \$300 million.⁵ Unlike any other recipient of Soviet military assistance, either within the Warsaw Pact or in the Third World, Cuba is not obligated to pay for weapons received from the Soviet Union. Moscow benefits in other important ways, most significantly by Cuba's willingness to intervene with combat forces in politically sensitive regions of the Third World in support of foreign policy objectives common to both Cuba and the Soviet Union. [REDACTED]

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In recent years, Soviet arms deliveries have resulted in a fundamental change in the role and capabilities of the Cuban military. Prior to their large-scale intervention in Angola in late 1975, the Cuban military was structured as a homeland defense force, whose mission since 1959 had been to assure the survival of the revolutionary government against attack. There were few weapons that could threaten neighboring countries after Soviet strategic ballistic missiles and light bombers were withdrawn in 1962. The Army was composed almost entirely of infantry divisions without a great deal

⁵ All values are expressed in Soviet trade prices and include only weapon systems and support material delivered to Cuba, practically all of which were destined for the Cuban armed forces. It does not include the costs of developing and maintaining Soviet facilities and personnel in Cuba or Soviet technical advisory assistance to the Cuban armed forces. [REDACTED]

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of maneuver capability, the Air Force was largely an interceptor force with no bombers and few aircraft equipped for airlift or air assault, and the Navy was equipped and trained solely to protect the coasts against invasion and infiltration. [REDACTED]

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Since the mid-1970s, all branches of the armed forces have been improved. Newly delivered equipment, although not the most modern available from the Soviet arsenal, has been considerably more advanced than systems previously in the Cuban inventory. In addition, the introduction of these weapons, many of which are geared toward mobility and offensive operations, has improved not only the armed forces' ability to defend the island but also their capabilities to conduct offensive military operations off the island.

- ° The Army has received T-62 tanks, BMP infantry combat vehicles, BTR-60PB armored personnel carriers, BM-21 multiple rocket launchers, vehicle-mounted antitank guided missile launchers, ZSU-23-4 self-propelled antiaircraft guns, mobile engineering and bridging equipment, and possibly self-propelled artillery--most in relatively limited numbers. These systems have improved the Army's mechanized capability, as well as providing increased firepower and enabling the Cubans to replace some vintage equipment dating from the 1950s or earlier.
- ° The Air and Air Defense Force has received MiG-23 fighters, newer variants of the MiG-21 fighter and Mi-8 helicopter, An-26 transport aircraft, SA-3 surface-to-air missiles, and several new radar systems. The new aircraft have improved the Air Force's capabilities for air-to-air intercept, ground attack, and short-range troop and light cargo transport missions. The SA-3 system has improved Cuba's air defense protection at low-to-medium altitudes, while the new radars provide better target acquisition and a greater resistance to electronic countermeasures than older systems.
- ° In addition to the Koni-class frigate delivered this year, in recent years the Navy has received two FOXTROT-class diesel-powered torpedo attack submarines, OSA-II-class guided-missile attack boats, and Turya-class hydrofoil patrol boats. The FOXTROTs and Koni give some offensive antiship, antiair, and antisubmarine warfare (ASW) capability to a Navy whose sole orientation previously had been coastal defense, and will enable the Cuban Navy to sustain limited operations throughout the Caribbean basin, the Gulf of Mexico, and, to some extent, into the North Atlantic. Finally, the addition of several small minesweepers provides a limited harbor and coastal waterway clearing capability. [REDACTED]

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The quantitative and qualitative improvement of the armed forces and increasing Soviet-Cuban military ties has enabled Cuba to assume a far more influential role on the world scene than its size, location, or resources would dictate. With a population of just under 10 million, Cuba has by far the largest military force in the Caribbean basin and the second largest in Latin America (only Brazil's is larger). In recent years, Cuba has developed the capability to provide friendly governments with large numbers of combat-trained troops and supplies. Havana has increased the size of its airborne-trained forces to a current level of some 3,000 to 4,000 troops and has significantly improved its airlift and sealift capability as well. [REDACTED]

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There are some major limitations on Cuba's capability to intervene quickly with substantial military force in an openly hostile environment, however. Cuba currently lacks the aircraft needed to transport heavy military equipment for supporting ground operations and, therefore, would have to turn to the Soviets to achieve such a capability. Cuba has virtually no capability to mount an amphibious assault, due to its small number of naval infantry personnel and a dearth of suitable landing craft. [REDACTED]

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Prospects

The success of the Cuban military establishment in achieving some of Havana's -- and Moscow's -- key foreign policy goals in the past ensures that a high priority for strengthening the armed forces' capabilities will continue well into the future. Substantial improvements have been made throughout the military since the mid-1970s. Force modernization has progressed slowly however, and the Cuban armed forces still are equipped with large numbers of weapons systems that have been in service for over two decades. At least for the near term, therefore, most weapons improvements probably will involve additional Soviet deliveries of systems recently introduced into the Cuban inventory in small numbers. [REDACTED]

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Of the three branches of the armed forces, the Cuban Army -- primarily because of its size -- faces the most severe challenge in terms of overall force modernization. Although the Army has received several new types of modern equipment with improved firepower and maneuverability, most have been delivered in only limited numbers. For example, of the roughly 700 medium tanks in Cuba's inventory, less than 50 are T-62s and the remainder are T-54/55s and World War II vintage T-34s. Future Soviet deliveries for the Army will likely continue to emphasize increased mobility for all types of combat equipment -- tanks, personnel carriers, artillery, air defense, and combat support. The modernization effort for the Army will primarily involve systems already in service in Cuba. Still, some weapons not yet observed with Cuban forces in Cuba, such as SA-9 or SA-6 surface-to-air missiles or D-30 howitzers used by Cuban troops in Ethiopia, may be included as well. [REDACTED]

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Fighter aircraft deliveries in the next year or two probably will be dominated by late model MiG-21s, with additional MiG-23s a possibility. Shipment of MiG-25 Foxbats, which could threaten US SR-71 reconnaissance flights, are unlikely, although the aircraft has been delivered to other Soviet client states. The most significant deficiency currently affecting Cuba's ability to intervene with substantial military force in a hostile environment is a shortage of suitable transport aircraft. The seven Il-62Ms in the inventory of Cubana -- Cuba's civil airline, which has been used extensively in the past for military transport operations -- have improved Cuba's long-range troop transport capability, but are not configured for cargo transport operations. Conversely, the Air Force's An-26s are suitable for either a troop- or cargo-carrying role, but have limited range and capacity. To enhance Cuba's long-range air cargo capability, the Soviets could supply a small number of newer cargo transports, such as the An-12. In addition, Cubana reportedly will receive nine more Il-62s and up to 20 short- and medium-range transports by 1985. [REDACTED]

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Although the introduction of the FOXTROTs and Koni give the Cuban Navy some offensive capability, the primary mission of this force remains coastal defense. Both combatants will enable the Navy to improve somewhat its still deficient ASW capability -- the Koni comes equipped with ASW rocket launchers and a sonar system, the FOXTROTs will enable the Cubans to conduct ASW exercises without having to rely on visiting Soviet submarines for targets. In the next few years, the Navy probably will receive more capable submarine chasers, additional FOXTROTs, and possibly ASW helicopters and another Koni frigate. In addition, some entirely new combatants, such as Nanuchka-class guided missile patrol boats and Shershen-class torpedo boats, may also be delivered. As well as improving ASW capabilities, this equipment will help alleviate deficiencies in the Navy's air defense coverage. Without the addition of several major combatants, such as destroyers and more frigates, however, the Cuban Navy will remain essentially a home water force, with considerably more modest capabilities than found in several other Latin American countries. [REDACTED]

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MEMORANDUM

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SUBJECT: Soviet Arms Deliveries: Effect on Cuban Military Capabilities

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